

BOOK REVIEW

Fauna Malesiana Handbooks, Volume 3. The families of Malesian moths and butterflies, by Jeremy D. Holloway, Geoffrey Kibby and Djunijanti Peggie, with contributions from David J. Carter and Scott E. Miller, and colour plates photographed by Bernard D'Abrera. Published by Brill Academic Publishers, The Netherlands, 2001; xii + 456 pp (with approximately 124 illustrations). ISBN 90 04 11846 2. Price US \$145, EUR 118.

To the uninitiated (as I was), Malesia is the extremely complex (entomologically) area stretching from Malaysia to the Solomons, but excluding Australia. The aim of this book (foreword and acknowledgements) is to provide an accessible first guide to the diversity of the Order Lepidoptera found within Malesia. This aim is admirably met, but its appeal extends much further than to students of this zoogeographic area alone.

Chapter 1, defined as the Introduction, pays limited but pertinent depth to the classification and definition of the Lepidoptera. An inclusive section on diversity and biogeography of Malesian Lepidoptera discusses areas of interest – species richness and island areas, endemism and patterns of distribution of higher taxa. Aspects of biology are presented, with references to visual and chemical communication, sound reception and production, and flight and migration. A section on collection and preservation of Lepidoptera material, although admittedly brief, is extremely well presented and extends to making and arranging a collection, genitalic preparation, and concludes with available literature sources on Malesian Lepidoptera. A list is also presented of reference collections in the various countries comprising Malesia.

Chapter 2 addresses the morphology of adults, eggs, larvae and pupae of Lepidoptera to a level that will allow the specialist to proceed to more detailed accounts. To any students of the fauna of this region, this section is extremely well presented and is an invaluable research tool.

Chapter 3 covers the identification of Lepidoptera families. An introduction discusses the complexities and pitfalls in presenting keys to identification of early stages of Lepidoptera, as well as adult stages, especially in such a tropical environment. Family recognition by examination of wing venation, sexing specimens, tympanal organs, head structures and legs, is presented. A brief section on "Quick fixes" and other pertinent cautions adds merit to the work.

This chapter presents a definitive key on families known from, or potentially occurring in the Malesian area. This key in itself is a significant contribution to the book. The identification of larvae is aided in a well presented guide to visible external larval features, feeding or housing restrictions and other biological criteria, such as ant interaction. Host plant specialisation addresses

respective plant groups and families, with a collative account of specialisation of larvae feeding on individual angiosperm families.

Chapter 4 is the major component of the work and presents accounts of all Malesian Lepidoptera families. It is a superb presentation, based on the authors' collective knowledge, and details some 178 pages of family analyses. Eight well presented colour plates are good value.

A number of appendices then present comparison of species totals of various lepidoptera groups in various regions, as well as a breakdown of number of recorded species for Sphingidae and butterfly families in various parts of Malesia. Appendix 4 presents data of pest species recorded from Malesia. Appendix 5 presents a table of taxonomic and nomenclatural changes in microlepidoptera presented in this handbook. An extensive list of reference works utilised in the completion of this handbook demonstrates the depth of dedication shown by the authors. An index to morphological and cladistic terms precedes the index to lepidoptera names.

In summation, this handbook is extremely well presented, authoritative, and will offer appeal to both amateur and professional entomologist alike. Its appeal will also extend to anyone with an interest extending beyond the Malesian area. From a personal level, I received much satisfaction in randomly selecting one or two north Queensland moth specimens and adequately keying their family classification, with considerable certainty. While not the intention of this handbook, it clearly demonstrated the extended potential and quality that the authors have achieved.

David Lane